

PEB

NEWSLETTER

1-99

NEWSLETTER CONTENTS

THE PROCESS

- ** STATE OF THE FERP
- ** MCAs ARE MEETING THEIR GOAL
- ** ECERT AT CART II

TRAINING

- ** .8 HISTORY
- THE NEW .8C
- ** THE TRAINING PULSE
- TRAINING
- ** GROW THE FUTURE

MANAGEMENT

- ELECTRICAL SAFETY
- TAG-OUT
- HEAT STRESS
- HEARING CONSERVATION
- LUBE OIL QUALITY MANAGEMENT
- FUEL OIL QUALITY MANAGEMENT
- LEGAL RECORDS
- OPERATING RECORDS
- QUALITY ASSURANCE
- BEARING RECORDS
- MGTESR
- ADETA
- DIESEL JACKET WATER
- BOILER WATER/FEED WATER
- ON-LINE VERIFICATION

OPERATIONS

- MOST FREQUENT UNSAT EVOLUTION

FIREFIGHTING

- FIREFIGHTING

TAB

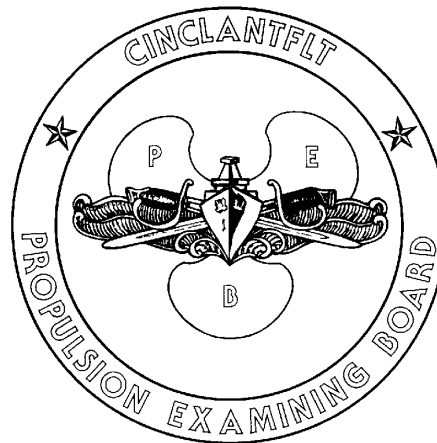
- A TRAINING PROGRAM COMPARISONS
- B FERP/PEB RESULTS SUMMARY

Senior Member's Comments

The theme of this issue of the Newsletter is the "State of the FERP." We will cover what we have seen and where we hope to go. This is probably the last "FERP" Newsletter. No matter how the Engineering Certification process is changed, there will have to be a new acronym. I said in the last Newsletter that I hoped to have more information on this new process, but I do not (of course between the time I've signed this and you've received it, who knows...). I've seen extremes from retiring PEB ("they have done such a good job that they are no longer needed") to return to the OPPE ("this is the least intrusive process"). It's of no matter, the articles in this Newsletter transcend any specific process. Also, please note that I have double asterisked (**) several articles in the Table of Contents that I think will be of particular interest to COs.

Moving on ... something that the SERB and irate ISICs have not been able to do, Father Time has finally achieved. My 30 years are up, and I will be retiring as of 01 May 99. I should start writing May 1, 1999. My relief is Captain Russ "TJ" Tjepkema. He is immensely qualified with steam, diesel, and staff experience. He is coming from a joint HQ AFCENT billet. I never thought I would see the Senior Member at PEB with joint qualifications - I guess my Navy has passed on. All the best to "TJ" and all you deckplate engineers. I will miss you.

W. J. LAZ



Published triannually by the Senior Member of the Atlantic Fleet Propulsion Examining Board as a means to address changes, common problems, and often asked questions from staffs or ships concerning the engineering readiness and certification process. Points of contact for the submission of ideas or articles are: CDR Doug MacCrea, Managing Editor, and LCDR Richard Frey, Editor; both at 757-836-0121/0120 or DSN 836-0121/0120, Fax: 757-836-5319.

THE PROCESS

STATE OF THE FERP

By: CAPT W. J. Laz, LANTFLT PEB

The "State of the FERP." Overall the state of the Fleet Engineering Readiness Process is **good**. Of course, we can be better; but the key process indicator, CART II performance, has never been better. In the first cycle of the FERP, only 35% of the ships at CART II finished in a "Ready" condition. Since the "official" start of the second cycle on 01 Jul 98, the "Ready" rate has dramatically increased to 65%. The primary reason is command understanding of, and familiarity with, the process. Also, there now is improved TYCOM/ISIC scheduling (e.g. No CARTs are scheduled immediately after LOAs). Additionally, ETG appears to be providing better, that is, more focused just-in-time training. No matter what the next engineering certification process turns into, the methodology developed in this process will hold you in good stead.

THE PROCESS

MCAs ARE MEETING THEIR GOALS

By: CAPT W. J. Laz, LANTFLT PEB

The purposes of the Mid-Cycle Assessment (MCA) were to level out the old OPPE engineering readiness sine wave and quoting the CLF 3540.2, "validate the ability of the command to sustain engineering readiness and provide 'mid-course' correction, if required." Statistical and empirical data support that these goals are being met. Statistically, the improved CART II results noted in the article above can be partially attributed to MCAs. Empirically, the results of a recent Med MCA cycle show the value of the opportunity to make low cost/stress "mid-course" corrections. Five ships were visited on the MCA cycle. One ship had an exceptionally good showing, and the other four were varying degrees of OK. However, on each of these four ships, a significant material safety issue was uncovered (e.g. boiler relief valves set improperly, high fuel oil dilution in diesel engine sumps) and corrected. Also on two of the ships, a significant operational deficiency was found and corrective training was conducted. PEB's

position is that conducting MCAs is a positive requirement from both the readiness and ORM points of view.

THE PROCESS

ECERT AT CART II

CAPT J. R. Miller, LANTFLT PEB

Since July, four ships have been offered the opportunity to try to conduct their ECERT in conjunction with their CART II. Three of them accepted and were successful. Under the current process, the CART II PEB Senior Assessor has the option to offer the CO and the ISIC the opportunity to conduct the ECERT immediately after conclusion of the CART II. This option will only be offered if he believes that the ship's state of engineering readiness is such that the ship is capable of being certified for "unrestricted engineering operations and intermediate training". The basic criteria the senior assessor will use to judge whether the ship is ready are:

- Did the ship pass more than 50% of its casualty control drills (each section)?
- Was the ETT "partially effective" or better?
- Did the watchteams satisfactorily complete 65% of their engineering evolutions (by section)?
- Was the Main Space Fire Drill "partially effective" or better?
- Was the DCTT "partially effective" or better?
- Were the engineering management programs sufficiently functional to support safe operation of the engineering plant?
- Were the minimum equipment in commission requirements consistently met throughout the CART II in accordance with CINCLANTFLTINST 3540.9?
- Were the engineering spaces clear of pools of flammable and combustible liquids? There should have been no flammable liquid leaks and any combustible liquid leaks must have been controllable through on watch personnel wipe ups.
- Was the ship capable of self-assessment to a level of "partially effective" or better?
- Did both documentation and deckplate performance demonstrate that the watchstanders were qualified and capable of standing an effective watch?

The above are noted as basic criteria because in the end the PEB Senior Assessors are going to have to make a judgment call as to whether they think the ship is "ready." The FERP is a success oriented process. The PEB Senior Assessors will of course work with the ship and the ISIC and refer back to the PEB Senior Member if appropriate.

As the FERP is evolving the only disadvantage to doing an immediate ECERT, if the opportunity were to be offered, is the risk of failure. The current process (including the various TSTA visits) was designed to make the risk of failure at ECERT essentially nil. The senior assessor will not recommend you proceed directly to ECERT if he believes there is any significant risk of failure. Additionally, you need not give up further training from ETG, if you think you need it. Lastly, you are not necessarily giving up underway days (needs to worked out with ISIC).

If there are any questions about this concept, please call me at DSN 836-0125, Comm 757-836-0125.

TRAINING

.8 HISTORY

By: CAPT W. J. Laz, LANTFLT PEB

As many people expected, most ships are continuing to use the 3540.8B as the basis of their Engineering Department Training Program. However, there are two areas that are commonly dropped in individual ship instructions. They are Watch Proficiency and Evolutions Training. That is certainly allowed, but I'll relate the history behind these areas. Before the .8, as today, we had PQS; and individuals qualified on specific watchstations. However, after trend analysis of mishap reports and CASREPs, it was noted that in a high percentage of the casualties the watchstander was qualified; however, he had not recently stood the watch. This was the birth of the requirement to ensure watchstanders maintain currency (proficiency) with any watch station they would man.

The Evolution Training Matrix had a similar evolutionary introduction. Most casualties were

self-induced by a watchstander conducting routine evolutions wrong. Also, there was the obvious realization that 98 percent of engineering operations are routine evolutions and increased training emphasis was needed in this area. Additionally, the required evolutions program of the .8B was used by the Surface TYCOMs to support the reduction of required drills.

So what is the purpose of the history lesson? We all remember the damage control adage "each requirement was a lesson written in blood." The .8B was written in "broken equipment." ORM should be used cautiously as you develop your Engineering Department Training Program.

TRAINING

THE "NEW" .8C

By: CAPT W. J. Laz, LANTFLT PEB

A new engineering department training instruction is being written, the 3540.8C. It is similar to the .8B, but the requirements are not mandatory. It does give you a current, effective instruction to use. It also gives us a vehicle to update and provide you with lessons learned and best practices.

Related to this you can look to TAB A to see the comparison of the 3540.8B, OPNAV SORM (CHAP 8), and SFTM. The similarities are, not unexpectedly, similar. ETG Mayport has done a wonderfully detailed review down to page and paragraph numbers. We will make this available to you as soon as our new Unclas Web Page comes up.

TRAINING

THE TRAINING PULSE

By: CAPT W. J. Laz, LANTFLT PEB

Since the cancellation of the .8B and the implementation of various unique training programs, PEB has been looking for a quick pulse point for the status of the ship's training

program. We are currently experimenting with looking at the ship's Casualty Control Training Documentation and comparing it with recent TRAREPs and the SORTS CTRNG MOB (E) rating. This is an easy "deckplate QA check" on program performance.

TRAINING

TRAINING

By: LCDR V. V. Cooper, LANTFLT PEB

A new training instruction, the 3540.8C, is being developed to replace the 3540.8B which was canceled without replacement. In the interim period, ships must continue to conduct training. An article entitled "THE .8B IS CANCELED ... WHAT NOW?" appeared in PEB Newsletter 3-98. This article provided excellent guidance on developing a training program for your ship until the .8C is promulgated.

During 1998, 20 percent of LANTFLT Continuous Training Programs were assessed as "not effective" (it was 23 percent in 1997). Common discrepancies that resulted in programs being assessed as "not effective" are listed below:

- Indoctrination training (OBA, EEBD, Emergency Egress, and SEED) for newly reported personnel was not conducted within 96 hours.
- Semi-annual OBA, EEBD, Emergency Egress, and SEED training was not conducted.
- Lesson Topic Guides were not tailored to the ship.
- Watch Team Replacement Plan did not support a three section watchbill.
- The ship did not have a Long Range Training Plan.
- Personnel were not standing proficiency watches as required (particularly ETT members).
- Ship's not completing a satisfactory percentage of drills.
- Lack of critical evaluation of drills and evolutions (unsatisfactory documentation).

TRAINING

GROW THE FUTURE

By: CAPT W. J. Laz, LANTFLT PEB

Over the past year, a disturbing trend has been noted in that numerous Chief Engineers were not qualified as EOOWs, and just as significant is that Engineering Department junior officers were not actively completing their EOOW PQS. There are two significant problems. The short term problem is leadership and respect. It is much "easier" for the troops to follow an officer who displays the technical competence and motivation to qualify EOOW, rather than one who gets his qualification as a goodbye-kiss. Also, qualification is the best and quickest way of learning the plant and one's job.

The more important long term problem is that the Navy is not "growing" the next generation of Chief Engineers. I realize that OOD/SWO qualification is the paramount requirement, but as we make "smarter" ships with less manning, the technical competence and experience of the Chief Engineer will become more critical. Cheng will not have as many technicians on board as currently man our ships.

I strongly recommend that Engineering Department officers complete their EOOW qualifications as soon as possible after reporting. They still should have plenty of time on their tour to complete their OOD/SWO quals and cement both their engineering and topside experience.

MANAGEMENT

ELECTRICAL SAFETY

By LCDR John M. Kubera, LANTFLT PEB

During 1998, 26 percent of LANTFLT Electrical Safety Programs were assessed as "not effective." This is an increase since 1997 when the percentage of "not effective" programs was 21 percent. Common discrepancies that resulted in programs being assessed as "not effective" are listed below:

- Violating safety procedures. Personnel working on **live** electrical equipment. This primarily occurred during assessments when personnel were trying to repair emergent casualties and material discrepancies.
- Material discrepancies. This included, but was not limited to, exposed wiring, overfusing, mislabeled fuse panels, and control consoles with loose or missing fasteners.
- Electrical Safety training. Numerous personnel were overdue for annual Electrical Safety training or there was no evidence (ie, documentation) that annual training was conducted.
- Safety checks. These discrepancies were primarily with electrical equipment not being safety checked within the proper periodicity or the lack of documentation for the proper tracking of this equipment. This included personal electrical/electronic equipment, test equipment, and portable gear checked out of Tool Issue.

MANAGEMENT

TAG-OUT

By LCDR Dean Fuller, LANTFLT PEB

During 1998, 29 percent of LANTFLT Tag-Out Programs were assessed as "not effective" (the percentage was 26 in 1997). Many of these programs would have been assessed as "partially effective" for the administrative portion of the program, but they were found "not effective" based upon deckplate evaluation. During high tempo periods, which include assessments, engineering personnel must maintain focus and attention to detail. When emergent repairs are required, taking a deep breath and executing the repairs "by the numbers" will help prevent equipment from not being tagged-out and improper "single valve protection" tag-outs. The following is a list of frequently observed discrepancies:

- Equipment not tagged-out while effecting repairs.

- Incomplete Tag-Out to fully isolate the system (ie, insufficient number of tags).
- Fuses removed without tagging-out the fuses and the supply power breakers.
- Improper "single valve protection" tag-outs.
- Amplifying information on caution tags not specific enough or not matching the tag-out record sheet.

MANAGEMENT

HEAT STRESS

By LCDR John M. Kubera, LANTFLT PEB

During 1998, 33 percent of LANTFLT Heat Stress Programs were assessed as "not effective." That is a relatively minor change from 1997 when the percentage of "not effective" programs was 30 percent. Common discrepancies that resulted in programs being assessed as "not effective" are listed below:

- Surveys not conducted. This included follow on surveys, after BECCE surveys, and surveys for spaces outside of engineering such as the Scullery, Laundry & the Galley, as well as surveys that are taken when space temperatures exceeded 100 deg F in engineering spaces.
- Level of knowledge. This included the chain of command as well as EOOWs and Heat Stress Monitors. These deficiencies culminated themselves in improperly completed surveys or surveys where Heat Stress conditions were present and no action was taken.
- Space temperature logs were missing.
- Personnel were overdue for annual training.
- Insufficient operating WBGTs were available onboard.
- Ship's instructions were not properly updated.

MANAGEMENT

HEARING CONSERVATION

By LCDR William Allen, LANTFLT PEB

During 1998, 24 percent of LANTFLT Hearing Conservation Programs were assessed as "not effective." This percentage remains unchanged from 1997. The most common discrepancy leading to an assessment of "not effective" continues to be non-compliance with hearing protection requirements by personnel in noise hazardous areas.

This problem can be corrected by rigorous enforcement of hearing protection requirements. Training, specific to the noise hazardous areas aboard your ship, ensures personnel are aware of the areas where they need protection.

Other common discrepancies included:

- Personnel overdue for annual audiograms.
- Follow-up audiograms not conducted.
- Insufficient equipment to provide double hearing protection where required.

MANAGEMENT

LUBE OIL QUALITY MANAGEMENT

By LCDR Samuel Overmyer, LANTFLT PEB

During 1998, 48 percent of LANTFLT Lube Oil Quality Management Programs were assessed as "not effective," 50 percent as "partially effective," and 2 percent as "effective." The previous year 39 percent were "not effective," 56 percent were "partially effective," and 5 percent were "effective." Unfortunately the trend is toward the negative. The LOQM Program has not changed in quite a while, so the question is, "What is the problem?" After reviewing assessment reports from the past year, there were no new discrepancies which are responsible for this downward trend. Most ship's training programs indicate that LOQM training is being conducted; however, deckplate level of knowledge from supervisory personnel down to the personnel in the engineering spaces does not reflect this training.

An effective LOQM Program allows for the safe operation of equipment. ETG and PEB are ready and willing to answer any questions or assist you in any way we can to improve your LOQM program. The ETG LOQM program

manager is GSMC(SW) Shafer, DSN 565-0651. The PEB program manager is LCDR Bena, DSN 836-0120.

MANAGEMENT

FUEL OIL QUALITY MANAGEMENT

By LCDR Jared A. Keys, LANTFLT PEB

During 1998, 11 percent of LANTFLT Fuel Oil Quality Management Programs were assessed as "not effective." Nine percent of programs were assessed as "not effective" in 1997. This increase, however minute, can be attributed to several administrative and deckplate issues. The following is a list of frequently observed discrepancies:

- Samples not consistently or properly logged on the Fuel Oil Test Logs.
- Fuel Oil Test Log not consistently reviewed by supervisory personnel.
- Fueling Memorandums not completely or properly filled out.
- Oil Spill Training not conducted quarterly in accordance with CNSINST 3502.2D.
- Oil spill containment kits not properly stocked.
- Water Indicating Paste (WIP) tests not routinely conducted as required by NSTM 541.

MANAGEMENT

LEGAL RECORDS

By LCDR T. R. Weber, LANTFLT PEB

During 1998, 29 percent of LANTFLT Legal Records Programs were assessed as "not effective" which remains unchanged from 1997. Common discrepancies that resulted in programs being assessed as "not effective" included:

- Insufficient information provided in the Engineering Log to reconstruct significant events. (This is the most common discrepancy.)
- Incomplete entries regarding equipment tag-outs (ie, no reasons provided for tag-out, no explanation of work accomplished).

- Mid-watch Engineering Log entries not accurate or missing data. (This is indicative of a lack of continuity between watchstanders and supervisors.)
- Bell Logs not maintained or reviewed.
- Major "single event" errors (ie, no action logged for loss of LOSCA oil, low MRG oil level).
- Missing signatures.
- Lack of meaningful supervisory review.

Keep in mind that most "not effective" programs have numerous errors throughout the log, not just a few mistakes scattered over months of entries. The bottom line is that meaningful reviews conducted watch-to-watch by the EOOW and daily by the MPA and Cheng will almost always resolve problems with the log. Make the time and effort to train and mentor watchstanders.

MANAGEMENT

OPERATING RECORDS

By LCDR T. R. Weber, LANTFLT PEB

During 1998, 28 percent of LANTFLT Operating Records Programs were assessed as "not effective" which is up from 23 percent in 1997. Common discrepancies that have led to programs being assessed as "not effective" include:

- Out-of-parameter readings with specific causes not identified, incorrect explanations provided, or unrealistic reasons given. (This was the most common discrepancy.)
- Lack of meaningful supervisory review.
- Logs not reviewed in a timely manner.
- Log entries not made in accordance with the Engineer's Standing Orders.
- Corrective action not taken when required.
- ICAS not effectively used.

As with the Engineering Log, an individual discrepancy may not be detrimental to the program's overall effectiveness; however, several combined deficiencies or a pattern of long term neglect in Operating Records could render the program "not effective." For ships equipped with ICAS, use it. If ICAS is broken, CASREP it. Also, if ICAS is fully functional, there is no requirement to print hard copy logs

(provided that at least 6 months of records are kept on the hard drive).

MANAGEMENT

QUALITY ASSURANCE

By LCDR Jim Talbert, LANTFLT PEB

Ref: (a) CLF/CPFINST 4790.3, Vol. 5

During 1998, 51 percent of LANTFLT Quality Assurance Programs were assessed as "not effective." This is up 11 percent from 1997. Provided below are some of the common discrepancies that resulted in programs being assessed as "not effective." The first four discrepancies occurred most frequently.

- Qualification and/or maintenance of qualifications were not maintained.
- FWP's were not prepared when required, not prepared in accordance with reference (a), or provided incomplete maintenance instructions.
- The ship did not have a technical library and/or a method to account for tech manuals to ensure updates and revisions were installed.
- The Jobs Skill Program was not implemented.
- QA training was not included in the departmental Training Matrix.
- QA training was not conducted, or make-up lectures were not conducted for personnel that missed training.
- Topics outlined in reference (a) were not incorporated into the Lesson Topic Guides.
- Personnel had a weak knowledge of the tenets of the program.
- Department Training and Qualification records did not exist or did not contain the information outlined in reference (a).
- There was an insufficient number of QA qualified personnel on board.
- There was no plan for the maintenance of qualifications.
- Remedial actions were not established for personnel who did not maintain qualifications.
- ISIC audits were not conducted, or the ship had not responded to discrepancies identified during the ISIC audit.

- Surveillances were not conducted in accordance with reference (a).
- A DFS was not requested when required.
- There were unidentified or inter-mixed parts and/or fasteners found in storage bins.
- Special tools were not calibrated.

MANAGEMENT

BEARING RECORDS

By: LCDR Richard Frey, LANTFLT PEB

The statistics for 1998 indicate that 32 percent of ships assessed during this calendar year had "not effective" Bearing Record Programs. This percentage has increased since 1997 when the percentage of "not effective" programs was 16 percent. Some of the common discrepancies that ships are experiencing were identified in the article "Bearing Records" in PEB Newsletter 3-98. Other common discrepancies, which are leading factors in this downward trend, are:

- Bearing measurements are not being taken or are not being taken within periodicity.
- Once bearing wear has been determined, ships are not calculating the bearing clearance.
- Bearing Records indicating bearing growth or excessive bearing wear without the appropriate action being taken or documented.
- Ships not logging the status of the CPP/CRP system and the oil temperature or ships not duplicating the system alignment and temperature when taking measurements.
- Depth constants being re-established unnecessarily.
- Administrative or mathematical errors in the bearing logs.

Additionally, NAVSSES recently implemented an Advanced Change Notice to NSTM 244 (msg dtg 032000ZDEC98). Chief Engineers and Program Managers need to carefully review this article, the Newsletter 3-98 article cited above, and the ACN to NSTM 244 and then conduct a thorough program review to ensure that your Bearing Records Program does not fall into one of these common pitfalls.

MANAGEMENT

MARINE GAS TURBINE EQUIPMENT

SERVICE RECORDS

By LCDR Del Bena, LANTFLT PEB

During 1998, 12 percent of LANTFLT MGTEsRs were assessed as "not effective" (the percentage was 4 percent in 1997). Common discrepancies that resulted in programs being assessed as "not effective" are listed below:

- Technical Directives not updated with GGTB No. 0.
- No record of GTM/GTGs being placed in or taken out of lay-up during availabilities.
- Urgent gas turbine generator modifications not updated on SCR cards upon completion.
- Pertinent information not recorded in the miscellaneous history section.
- Missing signatures.
- Axial clearances not logged.
- Incorrect serial numbers recorded on selected equipment.
- Periodic inspections not conducted as required.

So, what is the bottom line? Lack of supervisory review. All of the above discrepancies are easily identifiable by knowledgeable supervisors who critically review the requirements for these records.

MANAGEMENT

AUTOMATED DIESEL ENGINE TREND

ANALYSIS

By LCDR Dean Fuller, LANTFLT PEB

During 1998, 28 percent of LANTFLT ADETA Programs were assessed as "not effective." This is a significant downward trend from the previous year when only 8 percent of ADETA Programs were assessed as "not effective." A large number of the programs in this category had the same discrepancy which was a lack of program manager supervision. Simply stated, trends were not accomplished. We, as leaders, scuttle our people's best efforts

to manage Navy-directed programs at the deckplate level if we do not ensure that the time for evolutions required to comply with these programs is allocated in the overall ship's dynamic scheduling mechanism (PBFT). The following is a list of frequently observed discrepancies:

- Diesel trends not conducted within periodicity.
- Ship's operating diesels that have overdue or unsatisfactory trends without a TYCOM approved DFS.
- Required post-repair trends not conducted following correction of items that led to the initial unsatisfactory trend.
- Parameters entered into the ADETA Program that were not within parameters and were not addressed during the supervisory review.

MANAGEMENT

DIESEL JACKET WATER

By LCDR John M. Kubera, LANTFLT PEB

During 1998, 16 percent of LANTFLT Diesel Jacket Water Programs were assessed as "not effective." The percentage of "not effective" programs remained unchanged from 1997. Common discrepancies that resulted in programs being assessed as "not effective" are listed below:

- Samples were not taken. This included routine as well as after water or chemical addition samples.
- Chemical Inventories. There were insufficient chemicals on board for performing required tests, and inventory logs were incomplete.
- Source Water. The purity and/or origin of the source water was not recorded in the logs.
- Logs were not reviewed. Jacket Water Logs were missing signatures.

MANAGEMENT

BOILER WATER/FEED WATER TEST AND TREATMENT

By LCDR Jim Gompper, LANTFLT PEB

During 1998, 29 percent of LANTFLT BW/FW Programs were assessed as "not effective." This represents an improvement since 1997 when the percentage of "not effective" programs was 46 percent. This also reflects improvements seen in ships completing their second training cycle. However, in spite of the Navy-wide focus on cost control, this key preventative maintenance program still remains a problem for some ships. Tube replacements are very costly and can be easily prevented. Some common discrepancies are listed below:

- Boiler lay-up status was not closely followed. This could include a lack of tracking of the daily status of the lay-up or a complete lack of a lay-up for several days.
- Lack of meaningful supervisory review. This usually manifests itself in growing accumulations of minor errors that eventually result in logs that do not accurately re-construct significant events.
- Inappropriate EOOW reactions to Oil King recommendations. The Oil King should be clear in his recommended action and be ready to show the EOOW the applicable references. The EOOW, for his part, must be acutely aware of the status of his water chemistry and coordinate with the Oil King to determine the best action that should be taken.
- Non-use of the DFT (CGs and DDs). If your ship has a DFT installed, it **MUST** be used whenever the boiler is operated.
- Poor control of required chemicals. Nothing can ruin your day more than finding out you have been chasing a bogus chemical casualty because someone was sloppy while mixing chemicals. Chemical mixing procedures must be strictly adhered to. Additionally, many ships are steaming around with far less than their required chemical inventory- the highest emphasis should be placed on building chemical stocks lest the ship be caught short in a critical situation.

An effective BW/FW Program will reap huge dividends. Pay attention to the details and be consistent. The consequences of neglect can be costly.

MANAGEMENT

ON-LINE VERIFICATION

By LCDR Dale Morse, LANTFLT PEB

During 1998, 22 percent of the LANTFLT On-Line Verification Programs were assessed as "not effective" (there were zero programs assessed as "not effective" programs in 1997). The factors that contributed to the not effective assessments included:

- Lack of supervisory review.
- Failure to fill in required information on the data collection sheets.
- Failure to complete all steps required by the PMS card.

While these discrepancies are administrative in nature, in one case the lack of a quality review of the OLV data sheets failed to identify errors and, consequently, resulted in a significant boiler control problem during drills.

Electronic Boiler Controls are currently being installed on ships. These new controls will eliminate 90 percent of the current OLV checks and are designed to significantly reduce Boiler Control System failures. The alteration is being accomplished as an AER under the supervision of the Naval Surface Warfare Center, Carderock Division. The program manager for the installation is Ken Kiesel Comm: 215-897-1166, DSN: 443-1166.

OPERATIONS

MOST FREQUENT UNSAT EVOLUTION

By: CAPT W. J. Laz, LANTFLT PEB

Ground isolation evolutions had a failure rate of 95 percent. There were numerous execution causes, but the systemic reason was lack of knowledge. The watchstanders did not understand why a ground was bad and/or had a weak level of knowledge of their electrical distribution system. This is especially disturbing considering that grounds/class "C" fires have

become our most common actual casualty. NSTM Sections 300-3.2.5 and .6 plus Appendix 300.G.3 and .4 provide theory and fundamental information. However, each ship will have to use it's own SIBs and Technical Manuals to draft a specific ground isolation procedure. Of note, one common deficiency that causes even good ships to be slow is that the Electrical Plant Operator does not have a "Load List." This is a document listing the loads (breakers) off the switchboards, load centers, and major power panels and their status (non-vital, semi-vital, vital). This is not a required document, but one extremely useful in both casualty and training situations.

FIREFIGHTING

FIREFIGHTING STATISTICS

By LCDR Jim Gompper, LANTFLT PEB

During 1998, 12 percent of LANTFLT CART II assessments resulted in "not ready" grades in firefighting. This is a slight increase from last year's 8 percent "not ready" rate. While main space fire drills vary greatly according to each ship's configuration and manning, there are some common hard spots that need to be focused on:

- Initial watchstander actions. The watchstanders' efforts to deflect, isolate, and remove the flammable source are the keys to a successful drill. Once the fire hazard is effectively eliminated, the battle is won. This is an area where repeated training sessions are helpful in avoiding watchstander "choke" when the assessors are watching.
- Post fire actions and overhaul. This is an area that has shown significant improvement, but is still weak. Productive fire drills should continue through the post fire stage to include vapor sealing the bilge, raking out burned lagging, inspection for hang fires, and desmoking.
- OBA management. This is another area where training and routine can save a ship considerable embarrassment. Develop a standard OBA timer tracking method and stick to it. The key to success here is doing it the same way every time.
- Planning. Effective fire drills need to be planned to the last detail. DCTTs that spend time playing "what if" as a group are much

less likely to be surprised by the watchstanders actions on the deckplates. Take advantage of all the experience in the DCTT to iron out bugs before they happen. Rigorously critique errors that do occur and focus your efforts on not making the same mistake twice.

The bottom line is “you get out of it what you put into it”. A well planned, executed and critiqued drill is worth dozens of sloppy exercises. For additional information, see CAPT Miller’s article on main space fire training in PEB Newsletter 2-98.

Editor’s Note: Another training tool which has the potential for a great deal of training value, yet most ships do not exercise this option, is to allow the watchstanders to combat and, if effective, extinguish the fire before it goes out of control.

TRAINING PROGRAM COMPARISONS

CLF/CPFINST 3540.8B	OPNAVINST 3120.1C (CHAP 8)	CNSLINST 3502.2D
<u>LTM/LTG's</u> List by topic in instruction <u>TRAINING PLANS</u> QUADRANTS QTR MTS <u>Evolutions/Casualty & Control</u> EVTM EVTR EV Eval forms CCTM CCTR <u>Watch team replacement (WTRP)</u> <u>Proficiency</u> WPL WPR	Make up own Minimum req: PQS Fund & Sys ANNUAL (LRTP) Quarterly Monthly Weekly No equivalent No equivalent Eval of individual progress req'd LRTP (TYCOM Reqs) No equivalent No equivalent SORM Page 8-2 Para 803C	Refer to SORM for reqmts. Department Head must approve. LRTP (OP CYCLE) SRTP The unit trng PGM must incl trng on equip/sys opn/maintenance LRTP/SRTP - Drill & exercise plans - Date & nature of operational trng - Report to CO - Retain until all deficiencies are corrected or until drill repeated CART I; Step 4 Review of current PQS Program and Watchbill for losses of W/S. Make PQS assignments to main- tain continuity (2201) Unit trng PGM must include watchstander PQS Proficiency trng. Required Schools, NEC's Master List
CLF/CPFINST 3540.8B	OPNAVINST 3120.1C (CHAP 8)	CNSLINST 3502.2D
I. <u>TRAINING CYCLE</u> (FERP) (TTS)	I. <u>UNIT TRNG PROGRAM</u>	I. <u>UNIT TRNG PROGRAM</u>
TAB A	12	

A. QUADRANTS I Dep to TSTA II TSTA I - FEP III FEP-DEP IV DEP	A. Long Range Trng PGM (Annual) (8-6) - QTRLY Trng Plan	A. Long Range Trng Plan (3-1-5) (Operational Cycle)
B. ISIC is final Arbitor (1-2-2)	B. Established by OPNAV	C. Established by TYCOM
II. <u>Program Elements</u> (1-3-1)	II. <u>Program Elements</u> (8-6 to 8-16)	II. <u>Program Elements</u> (3-1-5)
A. Lesson Topic MATRIX	A. Long Range Trng Plan	A. Long Range Trng Plan (LRTP)
B. Lesson Topic Guide	1. Annual Emp Sched	1. List of Trng EVTS to be completed through ships OP
C. Quadrant Trng Plan	2. List req'd insp/ certs/asst/ visits/exams	2. Command and depart- mental (may be combined)
D. Monthly Trng Schedule	3. List of TYCOM req'd exercises	
E. Evolution Trng MATRIX	4. List of off ship school & NEC reqmts including PERS who hold them.	B. Short Range Trng Schedule (SRTS)
F. Evolution Trng Records	5. List of lectures & seminars (as a min fund & sys fm PQS)	1. 3 months
G. Evolution Eval Forms		2. Scheds, exercises, drills & lectures
H. CASCON Trng MATRIX	B. Short Range Trng Plan	3. Command and departmental
I. Watch team Replacement Plan	1. Quarterly emp sched	C. Detailed Trng Schedule
J. Watchstander Prof Log	2. Quarterly trng plan	1. Command/Dept level
K. Watchstander Proficiency report	3. Monthly trng plan	2. Lists specific times, locations, assgnd instructors & group requiring training
	4. Weekly trng schedule	3. Should cover 1 week & be issued 2 weeks in advance
		4. Retained only until superseded
		D. CART 1; Step 4; Revw of curr PQS Prog & Wbill for losses of W/S; make PQS assgnmmts to main- tain continuity (2-2-2)

CLF/CPFINST 3540.8B	OPNAVINST 3120.1C (CHAP 8)	CNSLINST 3502.2D
		E. Req's Schools/NECs Master List 1. ONBD grads 2. PRD's 3. PROS gains 4. Used to ID shortfalls 5. Maintained shipwide by Trng Officer
<u>III. Trng Records</u> A. MTS (2 years) B. CCTM (last 4 QUADS) C. EVTR's 1. As long as watchstander is assigned D. W/S Prof Log (2 yrs) E. W/S Prof Repts (2 yrs) F. CASCON Eval forms (current & Prev QUAD) if trng shortfall G. WTRP's (Current & Prev QUAD) H. MUSTER DOC 1. Until missed Trng or unplanned Trng doc on MTS I. Critiques 1. Until correction made (if req'd)	<u>III. Trng Records (8-17)</u> A. Individual 1. Retained as long as assigned to unit B. Plan, Schedule & Record Maintenance 1. Specified by individual commands or TYCOMS	<u>III. Trng Records</u> A. Record of Trng Completed 1. Marked up to show trng (Marked up SRTS adequate) completed (optional). 2. Lectures/demonstrations 1. Listing by division of dates, topics, instructors & number of attendees. Retained for current trng cycle only. D. Retention: 1. LRTP -current trng cycle 2. SRTS -current & previous period 3. Record of completed trng - Current trng cycle (3-1-5 to 3-1-7)
<u>IV. Unplanned Trng</u> A. Logged on track of MTS B. Requires date, topic, instructor and refs used	<u>IV. Unplanned Trng</u> A. Not addressed	<u>IV. Situational Trng (3-1-6)</u> A. Annotated on 1. SRTS 2. In response to emergent reqm'ts or based on recently obsvd performance
CLF/CPFINST 3540.8B	OPNAVINST 3120.1C (CHAP 8)	CNSLINST 3502.2D
V. <u>ETT</u> A. Team Leader 1. Cheng or	V. <u>ETT</u> Not addressed	V. <u>ETT</u> (Pg 3-4-1) A. IAW 3540.8B
TAB A	14	

2. Senior EOOW
qual'd officer or
Senior Chief P.O.

- B. Team Coordinator
 1. MPA or
 2. Senior responsible
qual'd officer or
CPO-EOOW qual'd

- C. Reports & Records
IAW Chap 2, TAB F

- B. Team Leader
 1. Cheng or
 2. Senior EOOW
qual'd officer or
Senior Chief P.O.

- C. Team Coordinator
 1. MPA or
 2. Senior responsible
qual'd officer or
CPO-EOOW qual'd

- D. Must be PQS qualified
for watchstation
observed (Para 3407)

- E. Reports & Records
IAW 3540.22 & .8B

VI. Orientation Trng

- A. 10 topics listed

- B. Conduct monthly

VI. Indoctrination
Trng (8-17 & 8-20)

- A. No direct
application to
Engineering

- B. Basic list of
topics can be
added to at CO
discretion

VI. Indoctrination
Trng

- A. Not addressed

FERP/PEB RESULTS SUMMARY - JANUARY 1999 EDITION

ASSESSMENT RESULTS SUMMARY 01JAN 98 - 31 DEC 98

	<u>LOA</u>	<u>CART II</u>	<u>ECERT</u>	<u>Total</u>
Total Conducted (Running)	40	187	181	308
Conducted (Annual)	7	59	68	134
Ready	6 86%	25 42%	52 76%	83 62%
Ready But	1 14%	23 39%	12 18%	36 27%
Not Ready	0 00%	11 19%	04 06%	15 11%

	<u>CART II & LOA</u> (NOT READY)	<u>ECERT</u> (R-BUT/NOT)		<u>CART II & LOA</u> (NOT READY)	<u>ECERT</u> (R-BUT/NOT)
<u>BY MAJOR AREA</u>			<u>BY TYPE</u>		
MATERIAL	7 11%	9 13%	Diesel	2 10%	2 12%
TRAINING	6 9%	1 1%	Gas Turbine	7 21%	12 35%
FIREFIGHTING	8 12%	3 4%	Steam	2 15%	2 12%
OPERATIONS	n/a n/a	2 3%			
MANAGEMENT	0 0%	10 15%			

<u>CART II & LOA</u>					<u>ECERT</u>				
	<u>Material</u>	<u>Training</u>	<u>Firefighting</u>	<u>MGMT</u>		<u>DRILLS</u>	<u>SAT</u>	<u>UNSAT</u>	<u>AVG #</u>
Ready	54%	85%	76%	100%	Diesel		82%	18%	12
Ready But	35%	06%	12%	0%	Gas Turbine		82%	18%	14
Not Ready	11%	09%	12%	0%	Steam		82%	18%	14
Incomplete	00%	00%	00%	0%					
						<u>EVOLUTIONS</u>	<u>SAT</u>	<u>UNSAT</u>	<u>AVG #</u>
<u>ETG DET</u>	<u>Total</u>	<u>Ready</u>	<u>R-But</u>	<u>Not</u>	Diesel		89%	11%	25
Norfolk	37	16	15	06	Gas Turbine		85%	15%	28
Mayport	13	08	03	02	Steam		87%	13%	30
Ingleside	15	07	05	03					
Earle	01	00	01	00					

	<u>CART II & LOA</u>							
		<u>EFF</u>	<u>PE</u>	<u>NE</u>		<u>EFF</u>	<u>PE</u>	<u>NE</u>
					<u>MANAGEMENT PROGRAMS</u>			
Training		05%	75%	20%	Legal Records	13%	58%	29%
PQS		20%	65%	15%	Operating Records	07%	65%	28%
					Quality Assurance	09%	40%	51%
Electrical Safety		18%	56%	26%	Bearing Records	30%	38%	32%
Tag-out		16%	55%	29%	MGTESR	39%	49%	12%
Heat Stress		18%	49%	33%	ADETA	22%	50%	28%
Hearing Conservation		33%	43%	24%	Diesel Jacket Water	37%	47%	16%
Lube Oil Quality Mgmt		02%	50%	48%	Boiler Water / Feed Water	14%	57%	29%
Fuel Oil Quality Mgmt		29%	60%	11%	On-Line Verification	78%	00%	22%

FERP/PEB RESULTS SUMMARY - JANUARY 1999 EDITION **ASSESSMENT RESULTS SUMMARY 01JAN 98 - 31 DEC 98**

